

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A directional microphone, comprising:

- 5 a first sound entrance port and a second sound entrance port that are
 spatially separate from one another;

 a first air volume, a second air volume, and a third air volume;

 a first and second membrane that are respectively acoustically connected
 via the first and second air volumes with the first and second sound
10 entrance port, the first and second membrane being acoustically
 coupled with one another via the third air volume; ~~comprising air
 regions that are entirely unobstructed between the first and second
 membranes; and~~

 an output signal generator configured to generate an output signal of the
15 directional microphone from a vibration of at least one of the first
 and second membrane; and

 wherein at least one of the first and second membranes comprises a small
 penetration opening for barometric pressure equalization.

20 2. (original) The directional microphone according to claim 1, wherein the output
 signal generator comprises an electrically conductive layer on at least one of the
 first and second membranes.

25 3. (original) The directional microphone according to claim 2, wherein the output
 signal generator comprises a backplate electrode at the electrically conductive
 layer.

4. (original) The directional microphone according to claim 3, wherein
the electrically conductive layer and the backplate electrode form a capacitive
transducer element.
- 5 5. (original) The directional microphone according to claim 3, wherein both the
first and second membrane are electrically conductively coated, and together with
the backplate electrode respectively form a capacitive transducer element.
6. (original) The directional microphone according to claim 1, wherein the first
10 and second membranes are arranged parallel to one another.
7. (original) The directional microphone according to claim 3, further comprising:
an air gap lying between one of the first and second membrane and the
backplate electrode, the backplate electrode being arranged
15 between the first and second membranes.
8. (original) The directional microphone according to claim 3, wherein the
backplate electrode comprises air ducts for acoustic coupling.
- 20 9. (original) The directional microphone according to claim 8, wherein the air
ducts are arranged running parallel to one another and perpendicular to the
membranes.
10. (cancelled).
- 25
11. (previously presented) A hearing aid system, comprising:

the directional microphone according to claim 1;

an omnidirectional microphone configured to produce an omnidirectional
microphone signal; and

5 a signal processing unit connected to the directional microphone and the
omnidirectional microphone, the signal processing unit being
configured to utilize the omnidirectional microphone signal and
directional microphone signal to generate an output signal
corresponding to a directional characteristic.

10 12. (original) A method for utilizing a hearing aid device, comprising:

providing a directional microphone according to claim 1 for the hearing aid
device; and

generating an output signal of the directional microphone from a vibration
of at least one of the first and second membrane.

15

13. (currently amended) A method for operating a directional microphone,
comprising:

providing an acoustic wave at a first sound entrance port of the directional
microphone;

20 providing the acoustic wave at a second sound entrance port of the
directional microphone at a location that differs from the first sound
entrance port at a later time due to a difference in distance of the
acoustic wave source from the first sound entrance port and the
second sound entrance port respectively;

25 vibrating a first membrane that is acoustically connected to the first sound
entrance port via a first air volume based on the acoustic wave at
the first sound entrance port;

vibrating a second membrane that is acoustically connected to the second sound entrance port via a second air volume based on the acoustic wave at the second sound entrance port;

5 superimposing the second membrane vibration onto the first membrane via a third air volume comprising air regions that are entirely unobstructed between the first and second membranes; and
outputting a signal corresponding to the vibration of the first membrane having the superimposed second membrane vibration on it due to mechanical coupling; and

10 performing a barometric pressure equalization via a small penetration opening in at least one of the first and second membranes.